

Tools Ensure Reliability of Critical Software



Jet Propulsion Laboratory (JPL)

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NASA Technology

- ◆ NASA's Mars Global Surveyor experienced an unexpected 2-day lapse in communication following a software defect
- ◆ Since spacecraft have become increasingly reliant on software, a NASA scientist proposed compliance rules to reduce risk and provide consistency



Partnership

- ◆ JPL had already awarded a Small Business Innovation Research (SBIR) contract to GrammaTech to create a tool that can automatically check software for compliance
- ◆ GrammaTech adapted its product, CodeSonar, to include verification of "The Power of 10," NASA's software compliance standards

Benefits

- ◆ GrammaTech adapted CodeSonar for commercial use; the software finds problems in a program without executing any part of it
- ◆ CodeSonar has hundreds of users worldwide, from Fortune 500 companies and startups to cell phone companies and many nonprofit and governmental organizations